

REMARKS

Status of the Application

Claims 15-27 are all the claims currently pending in the application. Claims 15-27 have been rejected. The present Response addresses each point of rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 15-17, 19-23, and 25 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Publication No. 2003/0040346 to Fukuda. Applicant respectfully traverses this ground of rejection.

Independent claim 15 recites a portable terminal in which “said second refractive conversion lens is exchangeable with said first refractive conversion lens by a sliding operation.” The geometry of the portable terminal is defined by the other elements recited in claim 15. An image pickup device and the first refractive conversion lens are arranged in different housings, such that when the housings are laid on each other, the image pickup device and the first refractive conversion lens have an identical optical axis.

Preliminarily, Applicant notes that the rotary shaft 14 of Fukuda does not replace a first refractive conversion lens with a second refractive conversion lens, as suggested by the Examiner. As shown in Figs. 1A and 1B, the cellular phone can be folded about the rotary shaft 14 so that the optical axis of the adapter optical system 28 (corresponding to the claimed first refractive conversion lens) becomes aligned with the optical axis of the image pickup module 18 (corresponding to the claimed image pickup device) (§ [0085]). Fig. 1B shows an embodiment in which the adapter optical system 28 includes a plurality of lenses 28A and 28B (§ [0085]).

However, Fukuda does not teach or suggest means for replacing one of these lenses with the other. Instead, both lenses are used together as part of the adapter optical system 28.

Further, Applicant respectfully submits that the grounds of rejection appear to be internally inconsistent. The Examiner first equates the claimed first refractive conversion lens with the adapter optical system 28, and the claimed image pickup device with the image pickup module 18 (Office Action, page 3, paragraph 4). However, the Examiner later equates the claimed second refractive conversion lens with the plurality of lenses 28A and 28B that constitute the adapter optical system 28 (page 3, paragraph 6). Still later the Examiner appears to equate the claimed second refractive conversion lens with the combination of the adapter optical system 28 and the image pickup module 18 (page 4, first paragraph, lines 2-3). The Examiner then changes his interpretation, and equates the claimed first refractive conversion lens with the image pickup module 18 (page 4, first paragraph, line 3).

Assuming *arguendo* that the image pickup module 18 in the case 10 corresponds to the claimed image pickup device, and that the adapter optical system 28 in the lid 12 corresponds to the claimed first refractive conversion lens, Applicant submits that Fukuda fails to teach or suggest a second refractive conversion lens that is exchangeable with said first refractive conversion lens by a sliding operation, as recited in claim 15. Figs. 29A and 29B show an embodiment in which a first adapter optical system 28a can be replaced with a second adapter optical system 28b by rotating the lid 12 about a rotary shaft 60. Assuming *arguendo* that the first adapter optical system 28a corresponds to the claimed first refractive conversion lens, and that the second adapter optical system 28b corresponds to the claimed second refractive conversion lens, Figs. 29A and 29B show that the first adapter optical system 28a is not exchangeable with the second adapter optical system 28b by a sliding operation. Instead, as

discussed above, the first adapter optical system 28a and the second adapter optical system 28b are exchangeable by a rotation operation about the rotary shaft 60.

The Examiner continues to assert that Figs. 18A and 18B show that the second refractive conversion lens is exchangeable with said first refractive conversion lens by a sliding operation. Applicant respectfully disagrees. As discussed in the Amendment of January 22, 2008, Fig. 18A shows an embodiment of a cellular phone with a sliding lid 12 (¶ [0151]). When the sliding lid 12 slides upward from the position shown in Fig. 18A, the optical axis of the adapter optical system 28 becomes aligned with the optical axis of the image pickup module 18. However, Fig. 18A does not teach or suggest that the adapter optical system 28 (read as the claimed first conversion lens) can be replaced by a second conversion lens. On the contrary, Fig. 18A shows only a single adapter optical system 28 (conversion lens) that slides upward with the sliding lid 12 to align its optical axis with the optical axis of the image pickup module 18 (read as the claimed image pickup device).

Applicant submits that claim 15 distinguishes over Fukuda at least by virtue of the aforementioned differences, as well as its additionally recited features. Further, Applicant submits that dependent claims 16, 17, 19-23, and 25 distinguish over Fukuda at least by virtue of their dependency on claim 15.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 18, 24, 26, and 27 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fukuda in view of U.S. Publication No. 2002/0061767 to Sladen. Applicant respectfully traverses this ground of rejection.

Claims 18, 24, and 26

As discussed above, Fukuda fails to teach or suggest a second refractive conversion lens that is exchangeable with said first refractive conversion lens by a sliding operation, as recited in claim 15. Further, as explained in the Amendment filed on July 20, 2007, it would not have been obvious to a person of ordinary skill in the art to replace the adapter optical system 28 of Fukuda with the array of mirror elements 714 of Sladen. Therefore, Applicant submits that claims 18, 24, and 26 are patentable over Fukuda and Sladen at least by virtue of their dependency on claim 15, as well as their additionally recited features.

Claim 27

Independent claim 27 recites a portable terminal in which “said first and second refractive conversion lenses are mounted on a rotatable turret.” As the Examiner concedes, Fukuda fails to teach or suggest the quoted claim feature. However, the Examiner maintains that Sladen discloses that “first and second mirrors or lenses are mounted on a rotatable turret (see figs. 4, 9 - 13; [0031 - 0034; 0038])” (Office Action, page 8). The Examiner also asserts that it would have been obvious to a person of ordinary skill in the art “to incorporate the teachings of Fukuda with that of Sladen in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera” (Office Action, page 8). Applicant respectfully disagrees.

Fig. 11 of Sladen shows an embodiment in which a circular array of mirror elements 717 are mounted on a rotatable element (¶ [0032]). This circular array of mirror elements 717 can be used in conjunction with the camera illustrated in Fig. 13, in which the rotatable element has a knurled edge and is mounted in a rotatable manner in order to provide for the selection of a particular mirror element 717 (¶ [0033]).

However, Fukuda discloses that the first adapter optical system 28a and the second adapter optical system 28b are lenses, not mirrors. Similar to the discussion in the Amendment of July 20, 2007, Applicant submits that it would not have been obvious to a person of ordinary skill in the art to replace first adapter optical system 28a and the second adapter optical system 28b of Fukuda with the circular array of mirror elements 717 mounted on the rotatable element of Sladen. As shown in Figs. 29A and 29B of Fukuda, the folding-dual-housing geometry of the cellular phone would not allow the circular array of mirror elements 717 of Sladen to direct light toward the camera 18 in either configuration in which the camera 18 operates.

In the folded operation of Fukuda, the mirror elements 717 of Sladen would block light from impinging on the camera 18. Further, in the unfolded operation of Fukuda, the mirror elements 717 of Sladen would not be able to reflect light onto the camera 18. In contrast, the single housing arrangement of Sladen relies on the mirror elements 717 to direct light to the camera 702, and also to capture images from two different points of view. Therefore, Applicant submits that claim 27 is patentable over Fukuda and Sladen at least by virtue of the aforementioned differences, as well as its additionally recited features.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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